

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION

BATCH No.: S 21

OF: VON DEYN ET AL.

GROUP ART UNIT: 1626

SERIAL No. 09/091,300

EXAMINER: ROBERT GERSTL

FILED: JUNE 16, 1998

FOR: 3-HETEROCYCLYL-SUBSTITUTED BENZOYL DERIVATIVES

DATE OF MAILING "NOTICE OF ALLOWANCE AND BASE ISSUE FEE DUE":

SEPTEMBER 13, 2000

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May 11, 2001

Honorable Commissioner of  
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REQUEST FOR CONTINUED EXAMINATION

PURSUANT TO 37 C.F.R. §1.114(A)(1)

Sir:

Further to applicants' Request that the Office withdraw the above-identified application from issue under the provisions of 37 C.F.R. §1.313(b), and pending that the respective Request of even date with this paper is granted, it is respectfully requested that the following amendment and the attached be entered and considered for further prosecution of the application:

IN THE CLAIMS:

Amend the claims to read as set forth in Appendix I attached to this paper. Claims 17, 18, 20 to 23, 28 to 31 and 34 to 46 are in the form in which they were allowed (Notice of Allowance dated September 13, 2000). New Claims 47 to 52 have been added.

R E M A R K S

Claims 17, 18, 20 to 23, 28 to 31 and 34 to 49 as set forth in Appendix I of this paper are now pending in this case. New Claims 47 to 52 have been added.

New Claims 47 to 49 are essentially copies of Claims 1 to 3 of *Adachi et al.* (US-A 6,147,031, copy enclosed with Supplemental Information Disclosure Statement), with the difference that applicants' have adopted the denotation of radicals as set forth in their formula (I), and with the further difference that subject matter which is not within the realm of the subject matter of Claims 28, 21, and 18, of the application has been omitted.

Similarly, new Claims 50 to 52 are copies of Claims 1 to 3 of *Adachi et al.* wherein applicants' have adopted the denotation of radicals as set forth in their formula (I). The subject matter of Claims 50 to 52 is *inter alia* supported by applicants' original Claims 1, 18 and 21. No new matter has been added. Favorable action is solicited.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees to Deposit Account No. 11.0345. Please credit any excess fees to such deposit account.

Respectfully submitted,

KEIL & WEINKAUF



Herbert B. Keil

Reg. No. 18,967

1101 Connecticut Ave, N.W.  
Washington, D.C. 20036  
(202) 659-0100

Encl.: THE ACTIVE CLAIMS (Appendix I)  
Supplemental Information Disclosure Statement

HBK/BAS

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# REQUEST FOR CONTINUED EXAMINATION (RCE) TRANSMITTAL

Subsection (b) of 35 U.S.C. § 132, effective on May 29, 2000, provides for continued examination of an utility or plant application filed on or after June 8, 1995.

See The American Inventors Protection Act of 1999 (AIPA).

Application Number	09/091,300
Filing Date	June 16, 1998
First Named Inventor	VON DEYN et al.
Group Art Unit	1626
Examiner Name	Gerstl
Attorney Docket Number	0050/47679

This is a Request for Continued Examination (RCE) under 37 C.F.R. § 1.114 of the above-identified application.

**NOTE:** 37 C.F.R. § 1.114 is effective on May 29, 2000. If the above-identified application was filed prior to May 29, 2000, applicant may wish to consider filing a continued prosecution application (CPA) under 37 C.F.R. § 1.53 (d) (PTO/SB/29) instead of a RCE to be eligible for the patent term adjustment provisions of the AIPA. See Changes to Application Examination and Provisional Application Practice, Interim Rule, 65 Fed. Reg. 14865 (Mar. 20, 2000), 1233 Off. Gaz. Pat. Office 47 (Apr. 11, 2000), which established RCE practice.

## 1. Submission required under 37 C.F.R. § 1.114

- a. ☐ Previously submitted
- i. ☐ Consider the amendment(s)/reply under 37 C.F.R. § 1.116 previously filed on \_\_\_\_\_  
(Any unentered amendment(s) referred to above will be entered).
- ii. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on \_\_\_\_\_
- iii. ☐ Other \_\_\_\_\_
- b. ☒ Enclosed
- i. ☒ Amendment/Reply
- ii. ☐ Affidavit(s)/Declaration(s)
- iii. ☒ Information Disclosure Statement (IDS)
- iv. ☐ Other \_\_\_\_\_

## 2. Miscellaneous

- a. ☐ Suspension of action on the above-identified application is requested under 37 C.F.R. § 1.103(c) for a period of \_\_\_\_\_ months. (Period of suspension shall not exceed 3 months; Fee under 37 C.F.R. § 1.17(i) required)
- b. ☐ Other \_\_\_\_\_

## 3. Fees

The RCE fee under 37 C.F.R. § 1.17(e) is required by 37 C.F.R. § 1.114 when the RCE is filed.

- a. ☒ The Director is hereby authorized to charge the following fees, or credit any overpayments, to Deposit Account No. 11-0345
- i. ☐ RCE fee required under 37 C.F.R. § 1.17(e)
- ii. ☐ Extension of time fee (37 C.F.R. §§ 1.136 and 1.17)
- iii. ☒ Other ANY DEFICIENCY IN FEES
- b. ☒ Check in the amount of \$ 710.00 enclosed
- c. ☐ Payment by credit card (Form PTO-2038 enclosed)

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Name (Print/Type)	Herbert B. Keil	Registration No. (Attorney/Agent)	18,967
Signature	<i>Herbert B. Keil</i>	Date	May 11, 2001

## CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner For Patents, Box RCE, Washington, DC 20231, or facsimile transmitted to the U.S. Patent and Trademark Office on:

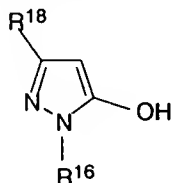
Name (Print/Type)	Herbert B. Keil	Date	May 11, 2001
Signature	<i>Herbert B. Keil</i>		

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## A P P E N D I X I:

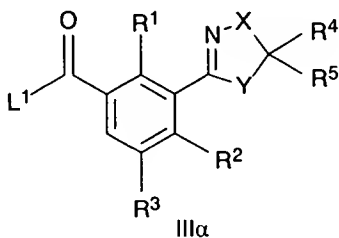
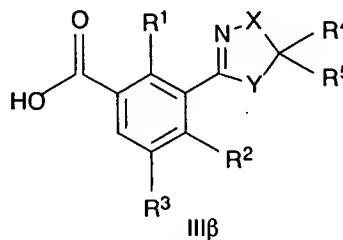
THE ACTIVE CLAIMS:

17. (*trice amended*) A process for the preparation of the 3-heterocycl-substituted benzoyl compound of the formula I defined in claim 28, which comprises acylating a pyrazole of the formula II



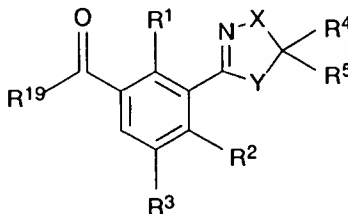
II

with an activated carboxylic acid III $\alpha$  or with a carboxylic acid III $\beta$

III $\alpha$ III $\beta$ 

where L<sup>1</sup> is a nucleophilically displaceable leaving group and subjecting the acylation product to a rearrangement reaction to give the compound I.

18. (*four times amended*) A 3-heterocycl-substituted benzoic acid compound of the formula III,



III

where

- R<sup>19</sup> is hydroxyl or a radical which can be removed by hydrolysis,
- R<sup>1</sup> is C<sub>1</sub>-C<sub>2</sub>-alkyl, methoxy or methylsulfonyl;
- R<sup>2</sup> is nitro, halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-haloalkyl, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl or C<sub>1</sub>-C<sub>6</sub>-haloalkylsulfonyl;
- R<sup>3</sup> is hydrogen, halogen or C<sub>1</sub>-C<sub>6</sub>-alkyl;
- R<sup>4</sup> is hydrogen or methyl, and R<sup>5</sup> is hydrogen;
- X is O;

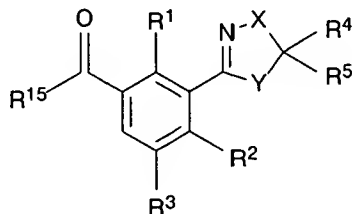
Y is CR<sup>13</sup>R<sup>14</sup>;

R<sup>13</sup>, R<sup>14</sup> are hydrogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy-carbonyl, C<sub>1</sub>-C<sub>4</sub>-haloalkoxycarbonyl or CONR<sup>7</sup>R<sup>8</sup>;

R<sup>7</sup> is hydrogen or C<sub>1</sub>-C<sub>4</sub>-alkyl;

R<sup>8</sup> is C<sub>1</sub>-C<sub>4</sub>-alkyl.

20. (*trice amended*) The 3-heterocyclyl-substituted benzoic acid compound of the formula III defined in claim 18, where R<sup>19</sup> is halogen, hydroxyl or C<sub>1</sub>-C<sub>6</sub>-alkoxy.
21. (*trice amended*) A composition comprising a herbicidally active amount of at least one 3-heterocyclyl-substituted benzoyl compound of the formula I or of the agriculturally useful salt of I defined in claim 28, and auxiliaries conventionally used for the formulation of crop protection products.
22. (*twice amended*) A process for the preparation of the composition defined in claim 21, which comprises mixing a herbicidally active amount of at least one 3-heterocyclyl-substituted benzoyl compound of the formula I or of the agriculturally useful salt of I and auxiliaries conventionally used for the formulation of crop protection products.
23. (*trice amended*) A method of controlling undesirable vegetation, which comprises allowing a herbicidally active amount of at least one 3-heterocyclyl-substituted benzoyl compound of the formula I or of the agriculturally useful salt of I defined in claim 28 to act on plants, their environment and/or on seeds.
28. (*twice amended*) A 3-heterocyclyl-substituted benzoyl compound of the formula I



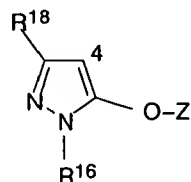
wherein

X is O;

R<sup>1</sup> is C<sub>1</sub>-C<sub>2</sub>-alkyl, methoxy or methylsulfonyl;

R<sup>2</sup> is nitro, halogen, C<sub>1</sub>-C<sub>6</sub>-alkyl, C<sub>1</sub>-C<sub>6</sub>-haloalkyl, C<sub>1</sub>-C<sub>6</sub>-alkylthio, C<sub>1</sub>-C<sub>6</sub>-alkylsulfinyl, C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl or C<sub>1</sub>-C<sub>6</sub>-haloalkylsulfonyl;

- R<sup>3</sup> is hydrogen, halogen or C<sub>1</sub>-C<sub>6</sub>-alkyl;  
R<sup>4</sup> is hydrogen or methyl, and R<sup>5</sup> is hydrogen;  
Y is CR<sup>13</sup>R<sup>14</sup>;  
R<sup>13</sup>, R<sup>14</sup> are hydrogen, C<sub>1</sub>-C<sub>4</sub>-alkyl, C<sub>1</sub>-C<sub>4</sub>-haloalkyl, C<sub>1</sub>-C<sub>4</sub>-alkoxy-carbonyl, C<sub>1</sub>-C<sub>4</sub>-haloalkoxycarbonyl or CONR<sup>7</sup>R<sup>8</sup>;  
R<sup>7</sup> is hydrogen or C<sub>1</sub>-C<sub>4</sub>-alkyl;  
R<sup>8</sup> is C<sub>1</sub>-C<sub>4</sub>-alkyl;  
R<sup>15</sup> is a pyrazole of the formula II which is linked in the 4-position



wherein

R<sup>16</sup> is C<sub>1</sub>-C<sub>6</sub>-alkyl;

Z is H; and

R<sup>18</sup> is hydrogen or methyl.

29. (amended) The 3-heterocyclyl-substituted benzoyl compound of the formula I defined in claim 28, wherein R<sup>1</sup> is methyl, R<sup>2</sup> is methylsulfonyl, R<sup>3</sup> is hydrogen, R<sup>16</sup> is methyl and R<sup>18</sup> is hydrogen.
30. 4-[2-Methyl-3-(4,5-dihydroisoxazol-3-yl)-4-methylsulfonylbenzoyl]-1-methyl-5-hydroxy-1H-pyrazole.
31. (amended) The 3-heterocyclyl-substituted benzoyl compound of the formula I defined in claim 28, wherein R<sup>1</sup> is methyl, R<sup>2</sup> is methylsulfonyl, R<sup>3</sup> is hydrogen, R<sup>16</sup> is ethyl and R<sup>18</sup> is hydrogen.
34. (amended) The 3-heterocyclyl-substituted benzoyl compound of the formula I defined in claim 28, wherein R<sup>1</sup> is methyl, R<sup>2</sup> is methylsulfonyl, R<sup>3</sup> is hydrogen, R<sup>16</sup> is methyl and R<sup>18</sup> is methyl.
35. The 3-heterocyclyl-substituted benzoyl compound of the formula I defined in claim 28, wherein R<sup>4</sup> denotes hydrogen.
36. The 3-heterocyclyl-substituted benzoyl compound of the formula I defined in claim 28, wherein R<sup>1</sup> is methyl.
37. The 3-heterocyclyl-substituted benzoyl compound of the formula I defined in claim 35, wherein R<sup>1</sup> is methyl.

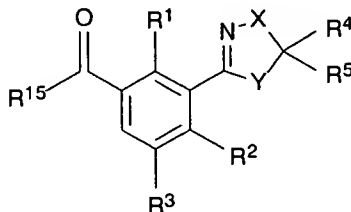
38. The 3-heterocyclyl-substituted benzoyl compound of the formula I defined in claim 35, wherein  $R^1$  is methyl,  $R^2$  is methylsulfonyl,  $R^3$  is hydrogen,  $R^{16}$  is ethyl and  $R^{18}$  is hydrogen.
39. The 3-heterocyclyl-substituted benzoyl compound of the formula I defined in claim 35, wherein  $R^1$  is methyl,  $R^2$  is methylsulfonyl,  $R^3$  is hydrogen,  $R^{16}$  is methyl and  $R^{18}$  is methyl.
40. The 3-heterocyclyl-substituted benzoic acid compound of the formula III defined in claim 18, wherein  $R^4$  denotes hydrogen.
41. The 3-heterocyclyl-substituted benzoic acid compound of the formula III defined in claim 18, wherein  $R^1$  is methyl.
42. The 3-heterocyclyl-substituted benzoic acid compound of the formula III defined in claim 40, wherein  $R^1$  is methyl.
43. The 3-heterocyclyl-substituted benzoic acid compound of the formula III defined in claim 20, wherein  $R^4$  denotes hydrogen.
44. The 3-heterocyclyl-substituted benzoic acid compound of the formula III defined in claim 20, wherein  $R^1$  is methyl.
45. The 3-heterocyclyl-substituted benzoic acid compound of the formula III defined in claim 43, wherein  $R^1$  is methyl.
46. The 3-heterocyclyl-substituted benzoic acid compound of the formula III defined in claim 45, wherein  $R^2$  is methylsulfonyl and  $R^3$  is hydrogen.
47. (new) The 3-heterocyclyl-substituted benzoyl compound of the formula I defined in claim 28, wherein
- X is O;
  - $R^1$  is  $C_1$ - $C_2$ -alkyl;
  - $R^2$  is  $C_1$ - $C_6$ -alkylthio or  $C_1$ - $C_6$ -alkylsulfonyl;
  - $R^3$  is hydrogen;
  - Y is  $CR^{13}R^{14}$ ; and
  - $R^{13}$ ,  $R^{14}$  are hydrogen or  $C_1$ - $C_4$ -alkyl.
48. (new) The composition defined in claim 21, comprising a herbicidally active amount of at least one 3-heterocyclyl-substituted benzoyl compound of the formula I or of the agriculturally useful salt of I, wherein
- X is O;

- $R^1$  is  $C_1$ - $C_2$ -alkyl;  
 $R^2$  is  $C_1$ - $C_6$ -alkylthio or  $C_1$ - $C_6$ -alkylsulfonyl;  
 $R^3$  is hydrogen;  
 $Y$  is  $CR^{13}R^{14}$ ; and  
 $R^{13}$ ,  $R^{14}$  are hydrogen or  $C_1$ - $C_4$ -alkyl.

49. (new) The 3-heterocyclyl-substituted benzoic acid compound of the formula III defined in claim 18, wherein

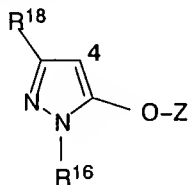
- $X$  is O;  
 $R^1$  is  $C_1$ - $C_2$ -alkyl;  
 $R^2$  is  $C_1$ - $C_6$ -alkylthio or  $C_1$ - $C_6$ -alkylsulfonyl;  
 $R^3$  is hydrogen;  
 $Y$  is  $CR^{13}R^{14}$ ; and  
 $R^{13}$ ,  $R^{14}$  are hydrogen or  $C_1$ - $C_4$ -alkyl.

50. (new) A compound represented by formula I



wherein

- $R^1$  is  $C_1$ - $C_6$ -alkyl;  
 $R^2$  is  $C_1$ - $C_6$ -alkylthio or  $C_1$ - $C_6$ -alkylsulfonyl;  
 $R^3$  is hydrogen;  
 $R^4$  and  $R^5$  are hydrogen or  $C_1$ - $C_4$ -alkyl;  
 $X$  is  $CR^{10}R^{11}$ , wherein  $R^{10}$  and  $R^{11}$  are hydrogen or  $C_1$ - $C_4$ -alkyl;  
 $Y$  is oxygen, and  
 $R^{15}$  is a pyrazole of formula II



which is linked in the 4-position, wherein

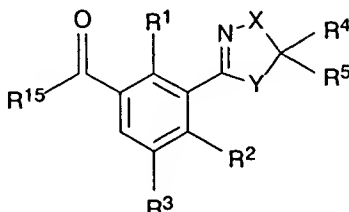
- $R^{16}$  is  $C_1$ - $C_6$ -alkyl;  
 $Z$  is hydrogen or  $SO_2R^{17}$ , wherein



R<sup>17</sup> is phenyl or phenyl which is partially or fully halogenated and/or has attached to it one to three of the following groups: C<sub>1</sub>-C<sub>4</sub>-alkyl and C<sub>1</sub>-C<sub>4</sub>-alkoxy;

R<sup>18</sup> is hydrogen or C<sub>1</sub>-C<sub>6</sub>-alkyl.

51. (new) A herbicide characterized by containing one or more compounds represented by formula I



wherein

R<sup>1</sup> is C<sub>1</sub>-C<sub>6</sub>-alkyl;

R<sup>2</sup> is C<sub>1</sub>-C<sub>6</sub>-alkylthio or C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl;

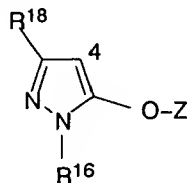
R<sup>3</sup> is hydrogen;

R<sup>4</sup> and R<sup>5</sup> are hydrogen or C<sub>1</sub>-C<sub>4</sub>-alkyl;

X is CR<sup>10</sup>R<sup>11</sup>, wherein R<sup>10</sup> and R<sup>11</sup> are hydrogen or C<sub>1</sub>-C<sub>4</sub>-alkyl;

Y is oxygen, and

R<sup>15</sup> is a pyrazole of formula II



which is linked in the 4-position, wherein

R<sup>16</sup> is C<sub>1</sub>-C<sub>6</sub>-alkyl;

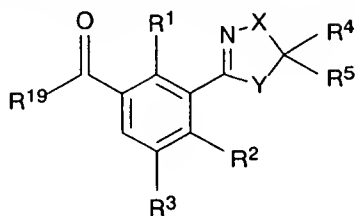
Z is hydrogen or SO<sub>2</sub>R<sup>17</sup>, wherein

R<sup>17</sup> is phenyl or phenyl which is partially or fully halogenated and/or has attached to it one to three of the following groups: C<sub>1</sub>-C<sub>4</sub>-alkyl and C<sub>1</sub>-C<sub>4</sub>-alkoxy;

R<sup>18</sup> is hydrogen or C<sub>1</sub>-C<sub>6</sub>-alkyl,

as active ingredients.

52. (new) A compound represented by formula III



III

wherein

R<sup>19</sup> is hydroxyl or C<sub>1</sub>-C<sub>6</sub>-alkoxy;

R<sup>1</sup> is C<sub>1</sub>-C<sub>6</sub>-alkyl;

R<sup>2</sup> is C<sub>1</sub>-C<sub>6</sub>-alkylthio or C<sub>1</sub>-C<sub>6</sub>-alkylsulfonyl;

R<sup>3</sup> is hydrogen;

R<sup>4</sup> and R<sup>5</sup> are hydrogen or C<sub>1</sub>-C<sub>4</sub>-alkyl;

X is CR<sup>10</sup>R<sup>11</sup>, wherein R<sup>10</sup> and R<sup>11</sup> are hydrogen or C<sub>1</sub>-C<sub>4</sub>-alkyl,  
and

Y is oxygen.